



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/771,454	02/05/2004	Alberto Nicoletti	108910-00121	2955
4372	7590	09/26/2007	EXAMINER	
ARENT FOX LLP			COONEY, JOHN M	
1050 CONNECTICUT AVENUE, N.W.			ART UNIT	
SUITE 400			PAPER NUMBER	
WASHINGTON, DC 20036			1711	
			NOTIFICATION DATE	DELIVERY MODE
			09/26/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DCIPDocket@arentfox.com
IPMatters@arentfox.com
Patent_Mail@arentfox.com

Office Action Summary	Application No.	Applicant(s)	
	10/771,454	NICOLETTI ET AL.	
	Examiner	Art Unit	
	John m. Cooney	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8-29-07 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kruecke et al.(6,080,799) in view of Moore et al.(5,658,962).

Kruecke et al. discloses preparations of polyurethane foams prepared from blowing agent combinations of 1,1,1,3,3-pentafluorobutane, and/or other hydrofluorocarbons, and/or other blowing agents as desired (see column 3 lines 45-53, as well as, the entire document).

Kruecke et al. differs from applicants' claims in that hydrofluoroalkyl ethers and/or other hydrofluoro-compounds as claimed by applicants are not particularly required.

Art Unit: 1711

However, Moore et al. discloses these compounds, having boiling points, structures, and molecular weights as claimed based on their molecular make-ups, to be useful in polymeric foam preparations for the purpose of imparting acceptable foaming effects (see column 4 lines 10-12, and column 23, as well as, the entire document).

Accordingly, it would have been obvious for one having ordinary skill in the art to have been obvious for one having ordinary skill in the art to have employed the blowing agents of Moore et al. in the preparations of Kruecke et al. for the purpose of imparting their acceptable blowing and cell regulating effect in order to arrive at the products and/or processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results. Additionally, as to the variations in the amounts of these respective species, it has long been held that where the general conditions of the claims are disclosed in the prior art, discovering the optimal or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233; *In re Reese* 129 USPQ 402 , and it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

The following previous arguments are all maintained:

The following arguments were set forth in the Office action mailed 2-3-06:

Applicants' arguments have been considered, but rejection is maintained for the reasons set forth in the previous Office action. Applicants' arguments concerning behaviors of blowing agents in the art, foam failures in prepared compositions of their disclosure, and other comparative disclosures have been considered. However, these disclosures do not demonstrate examiner's position of prima facie obviousness to fail based on the combination of references as set forth. Further, applicants' showings of

Art Unit: 1711

results fail to set forth a persuasive, factually supported, showing of new or unexpected results attributable to the combinations of their claims which are commensurate in scope with the scope of their claims. Further, evidence of unexpected properties must be demonstrated to be more significant than expected properties in order to rebut a prima facie case of obviousness.

That Kruecke et al.'s disclosure may be directed towards employment of binary azeotropic elements is not a feature excluded from applicants' claims, and employment of such elements does not negate Kruecke et al.'s further provision for the employment of additional blowing gases (column 3 line 54).

These arguments are maintained.

The following arguments were set forth in the Office action mailed 9-19-2006:

Applicants' latest arguments have been considered, but rejection is maintained to be proper for the reasons set forth above.

When considering showings of new or unexpected results, the following must be considered:

Result Must Compare to Closest Prior Art:

Where a definite comparative standard may be used, the comparison must relate to the prior art embodiment relied upon and not other prior art – *Blanchard v. Ooms*, 68 USPQ 314 – and must be with a disclosure identical (not similar) with that of said embodiment: *In re Tatincloux*, 108 USPQ 125.

Results Must be Unexpected:

Unexpected properties must be more significant than expected properties to rebut a prima facie case of obviousness. *In re Nolan* 193 USPQ 641 CCPA 1977.

Obviousness does not require absolute predictability. *In re Miegel* 159 USPQ 716.

Since unexpected results are by definition unpredictable, evidence presented in comparative showings must be clear and convincing. *In re Lohr* 137 USPQ 548.

In determining patentability, the weight of the actual evidence of unobviousness presented must be balanced against the weight of obviousness of record. *In re Chupp*, 2 USPQ 2d 1437; *In re Murch* 175 USPQ 89; *In re Beattie*, 24 USPQ 2d 1040.

Claims Must be Commensurate With Showings:

Evidence of superiority must pertain to the full extent of the subject matter being claimed. *In re Ackerman*, 170 USPQ 340; *In re Chupp*, 2 USPQ 2d 1437; *In re Murch* 175 USPQ 89; *Ex Parte A*, 17 USPQ 2d 1719; accordingly, it has been held that to overcome a reasonable case of prima facie obviousness a given claim must be commensurate in scope with any showing of unexpected results. *In re Greenfield*, 197

Art Unit: 1711

USPQ 227. Further, a limited showing of criticality is insufficient to support a broadly claimed range. *In re Lemin*, 161 USPQ 288. See also *In re Kulling*, 14 USPQ 2d 1056.

Applicants' have not persuasively demonstrated unexpected results for the combinations of their claims. Applicants have not demonstrated their results to be clearly and convincingly unexpected and more than mere optimizations of the knowledge in the art or more significant than being secondary in nature. Applicants' have not demonstrated their showing to be commensurate in scope with the scope of combinations now claimed.

Applicants' have not factually supported their allegation of unexpected non-foaming behavior of the hydrofluoroethers of applicants' claims when combined with HFC 365mfc. Nor have they demonstrated such unexpected effects in a manner which is commensurate in scope with the scope of the claims as they currently stand, nor have they shown these effects to be, in fact, unexpected and/or more significant than the expected effects attributable to their inclusion in the combinations of Kruecke et al.

Merely stating that Moore et al. discloses a use for their disclosed hydrofluoroethers rather than being inert as alleged by applicants in their combinations does not rebut examiner's position of obviousness, nor does it relieve applicants' of their burden to come forward with a showing of new or unexpected results which are commensurate in scope with the scope of their claims and unexpected results which are more significant than the evidence of expected results of record.

These arguments are maintained.

Applicants' latest arguments have been considered. However, rejection is maintained. Rejection does not fail because Kruecke et al. lacks the features indicated in the rejection. Moore et al. is properly looked to in order to resolve the deficiencies of Kruecke et al. The overlap in ranges of boiling point values between Moore et al. and applicants' claims is substantial and to a degree that distinctness based on this claim feature is not evident and rejection doesn't fail.

Examiner maintains his positions set forth above regarding showings are proper and will not be repeated here. It is maintained that applicants' showings fail to be commensurate in scope with the claims. To be commensurate in scope, showings must make comparisons using representative polymeric foam compositions and representative fluid compositions which are commensurate in scope with the scope of the claimed invention. Though applicants' do not necessarily need to make comparisons with HFC 365mfc and fluorinated compounds of Moore et al. outside the ranges of values of applicants' claims (meaning comparatives with HFC 365mfc alone may be acceptable), showings of new and unexpected results do need to clearly and convincingly show results to be unexpected and more significant than the evidence of expected results of record. Accordingly, it appears that fact based and original disclosure supported showings including comparisons such as blends of the instantly claimed fluorinated compounds combined with compounds similar to HFC 365mfc would be required to demonstrate the inert behavior alleged by applicants is, in fact,

Art Unit: 1711

new or unexpected and more significant than the evidence of expected results of record.

Any comparative showings that are presented must be commensurate in scope with the claims and demonstrate new and unexpected results that are more significant than the evidence of expected results of record.

Applicants' latest arguments have been considered. However, rejection is maintained. Regarding the recitation of "consisting essentially of" in the claims:

The transitional phrase "consisting essentially of" limits the scope of a claim to the specified materials or steps "and those that do not materially affect the basic and novel characteristic(s)" of the claimed invention. In *re Herz*, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976) (emphasis in original) (Prior art hydraulic fluid required a dispersant which appellants argued was excluded from claims limited to a functional fluid "consisting essentially of" certain components. In finding the claims did not exclude the prior art dispersant, the court noted that appellants' specification indicated the claimed composition can contain any well-known additive such as a dispersant, and there was no evidence that the presence of a dispersant would materially affect the basic and novel characteristic of the claimed invention. The prior art composition had the same basic and novel characteristic (increased oxidation resistance) as well as additional enhanced detergent and dispersant characteristics.). "A consisting essentially of claim occupies a middle ground between closed claims that are written in a consisting of format and fully open claims that are drafted in a comprising' format." *PPG Industries v. Guardian Industries*, 156 F.3d 1351, 1354, 48 USPQ2d 1351, 1353-54 (Fed. Cir. 998). See also *Atlas Powder v. E.I. duPont de Nemours & Co.*, 750 F.2d 1569, 224 USPQ 409 (Fed. Cir. 1984); In *re Janakirama-Rao*, 317 F.2d 951, 137 USPQ 893 (CCPA 1963); *Water Technologies Corp. vs. Calco, Ltd.*, 850 F.2d 660, 7 USPQ2d 1097 (Fed. Cir. 1988). For the purposes of searching for and applying prior art under 35 U.S.C. 102 and 103, absent a clear indication in the specification or claims of what the basic and novel characteristics actually are, "consisting essentially of" will be construed as equivalent to "comprising." See, e.g., *PPG*, 156 F.3d at 1355, 48 USPQ2d at 1355 ("PPG could have defined the scope of the phrase consisting essentially of for purposes of its patent by making clear in its specification what it regarded as constituting a material change in the basic and novel characteristics of the invention."). See also *AK Steel Corp. v. Sollac*, 344 F.3d 1234, 1240-41, 68 USPQ2d 1280, 1283-84 (Fed. Cir. 2003) (Applicant's statement in the specification that "silicon contents in the coating metal should not exceed about 0.5% by weight" along with a discussion of the deleterious effects of silicon provided basis to conclude that silicon in excess of 0.5% by weight would materially alter the basic and novel properties of the invention. Thus, "consisting essentially of" as recited in the preamble was interpreted to permit no more than 0.5% by weight of silicon in the aluminum coating.); In *re Janakirama-Rao*, 317 F.2d 951, 954, 137 USPQ 893, 895-96

Art Unit: 1711

(CCPA 1963). If an applicant contends that additional steps or materials in the prior art are excluded by the recitation of "consisting essentially of," applicant has the burden of showing that the introduction of additional steps or components would materially change the characteristics of applicant's invention. In re De Lajarte, 337 F.2d 870, 143 USPQ 256 (CCPA 1964). See also Ex parte Hoffman, 12 USPQ2d 1061, 1063-64 (Bd. Pat. App. & Inter. 1989) ("Although consisting essentially of is typically used and defined in the context of compositions of matter, we find nothing intrinsically wrong with the use of such language as a modifier of method steps. . . [rendering] the claim open only for the inclusion of steps which do not materially affect the basic and novel characteristics of the claimed method. To determine the steps included versus excluded the claim must be read in light of the specification. . . . [I]t is an applicant's burden to establish that a step practiced in a prior art method is excluded from his claims by consisting essentially of language.").

Applicants have not met their burden of showing the showing that the introduction of additional components of the cited prior art would materially change the characteristics of applicant's invention to the degree required by M.P.E.P. 2111.03, and examiner maintains that for the purposes of searching for and applying prior art under 35 U.S.C. 102 and 103, absent a clear indication in the specification or claims of what the basic and novel characteristics actually are, "consisting essentially of" will be construed as equivalent to "comprising." See, e.g., PPG, 156 F.3d at 1355, 48 USPQ2d at 1355.

Further, rejection over the combination of teachings set forth above is maintained to be proper for all of the reasons set forth, again, above. The cited references are maintained to be analogous art and properly combined with motivation to combine being evident and proper for the reasons as set forth above, and a sufficient showing of new or unexpected results has not been presented. Further, distinction based on the ranges of ratios of amount values is maintained to be not evident.


Application/Control Number: 10/771,454
Art Unit: 1711

Page 8

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Cooney whose telephone number is 571-272-1070. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JOHN M. COONEY, JR.
PRIMARY EXAMINER
Group 1700